Hypertext Based Clinical Assessment Using CD ROM and the World Wide Web

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Using hypertext tools for authoring in hyper media environments such as the Windows Help system or HTML, a system of generation of questions for assessment has been developed using both a stand alone package for CD ROM in Windows Help format and for world wide web distribution in HTML. The use of a web server has also allowed faculty to remotely author and test material to be used in the evaluation of medical students, residents and for faculty development.

Using a commercial program called Vivatexte, medical faculty have produced scripted MCQ examinations for use in beginning and end of rotation examinations in Internal Medicine. The examination questions consisted of text, images, video, laserdisc and sound. A question and answer tutorial format was also developed for use employing the same materials and method of authoring.

The advantage of this authoring package is that it allows material to authored once and then compiled for both Windows Help applications and HTML. A utility has been developed and built into the system to provide the capability to display high resolution true colour imagery using the Windows Help systems. This has significant advantages over using HTML which provides only 256 colour GIF images. This capability will be demonstrated with a variety of material which has been authored using this software platform.

One approach to deliver high quality tutorial material with high resolution graphics is to use the HTML features of a Web site to download the Windows Help file with the tutorial or testing module to the remote user. This has the advantages of using standard browser technology to allow the to navigate to the material chosen, but allowing download capability for material with high resolution imagery.

The system has also be used to author Problem Based Learning (PBL) case modules with the flexibility to use the same material in the form of an assessment module.

Software developments have allowed both the inputting of the question material by faculty using a web server. The administration of the testing to be done via CD or the web server to remote locations both inside and outside the various campuses within the University of Ottawa.